

104 is attached to one of the bosses on each front panel, and preferably to the uppermost boss. As shown in FIG. 2, a strike plate **106** is attached to the bottom **28** of the upper shelf **12**. In operation, the catch **104** magnetically engages the strike plate **106** to maintain the front panel in a closed position. It should be understood that other non-magnetic, e.g. snap-fit, catches could also be used.

In an alternative embodiment of the front panel, shown in FIGS. 2 and 23-26, the front panel **180** includes a pair of lugs **188** or sleeves dimensioned to receive the tie member **110**, and an outwardly facing trough **198** running along the side edge of the front panel above, below, and between the lugs **188**. The trough **190** has an inner diameter dimensioned to receive and pivot about the lugs or sleeves **48, 148** extending from the side panel, with the lugs **188** disposed in the space formed between the lugs **48, 148** and with the openings therethrough being coaxially aligned. The lugs **188** include a forwardly facing channel portion **200** and a rearwardly facing channel portion **202**, each of which is dimensioned to receive and engage the tie member **110**. The lugs **188**, with their channel portions **200, 202** define an opening **204** therebetween when viewed from a top or bottom of the panel. When installed, the lugs **48, 148, 188** form a hinge, which is connected with the tie member **110**, which serves as a hinge pin.

As shown in FIG. 1, the storage unit **10** can be assembled with our without front panels **80, 180** depending on the desired configuration. In addition, it should be understood that a single front panel that extends across the entirety of the width of the storage unit between the opposite side panels could also be used, with the front panel being pivotably attached to only one of the side panels. In such an embodiment, the strike plate **106**, or other catch device, would be moved from a center position to a side position so as to be aligned with a magnetic catch positioned adjacent an edge of the front panel.

To assemble the storage unit, a plurality of tie members **110** and insert members **120** are used. Each tie member **110** is preferably made of steel and includes opposite threaded ends **112**. The tie members are preferably

configured as a cylindrical shaft, on the rod, so as to serve as a hinge pin for the front panel. The insert members **120** are preferably configured as barrel nuts, shown in FIGS. 19 and 20, each of which has a threaded opening **122** or bore extending therethrough wherein the insert member can be threadably engaged from either or both ends thereof. One end of the barrel nut includes a circumferential flange **124** and a groove **126** formed in the flange and extending diametrically across the end of the barrel nut. In operation, as shown in FIG. 2, a plurality of insert members **120** are inserted into the openings **14** formed in the lowermost shelf member, with the circumferential flange **124** engaging a bottom of the shelf. In a preferred embodiment, the openings **14** are countersunk **16** so as to provide a recess for the flange **124** such that it does extend beyond the bottom surface of the shelf member.

The side panels **30** are next supported on the upper surface of the lowermost shelf member **12**, with the back panel **50** extending between the back sections **40** of the side panels. The bottom lugs **62** of the back panels rest on the bottom lugs or sleeves **46** of the side panels, with the openings of the lugs in coaxial alignment. A tie member **110** is inserted through the openings defined by the lugs **46**, **62**, **64**, which act as securing members, and is threadably engaged with the insert member **120** in the lowermost shelf. The tie member **110** is engaged between the trough **64** and the lugs **62** on the back panel, which act as securing members, and extends through the lugs or sleeves **46** on the side panels **30**.

Each of the front doors are then positioned with the lugs **88**, **90**, **188**, **190** thereof, and the openings defined thereby, and the openings defined thereby, coaxially aligned with the lugs **48**, **148** of the side panels and the openings defined thereby. In a first embodiment, a tie member **110** extends through and/or is engaged with the lugs **88**, **48**, **90** of the front door, and the side panel, which act as securing members, and is threadably engaged with the insert member **120** in the lower shelf. The lugs **48**, **88**, **90** in combination with the member **110** inserted therethrough form a hinge. In particular, the tie

member 110 is engaged between the trough 90 and the lugs 88, which act as securing members.

In the alternative preferred embodiment of the front panel 180, the trough 190 pivots about the lugs 48, 148 of the side panel. At the same time, the tie member 110 extends through and/or is engaged with the lugs 188, 48, and 148 of the front and side panels, which act as securing members, and is threadably engaged with the insert member 120 in the lower shelf. The lugs and trough 48, 148, 188, 190, in combination with the member 110 inserted therethrough, form a hinge.

In either embodiment, each front door 80, 180 is pivotably or hinged mounted about the tie member 110 and is thereby connected to the side panel 30. Preferably, the lugs 48, 148, 88, 90, 188 or securing members of the side and front panels are arranged such that the bottom 84 of the front panel is spaced slightly above the upper surface of the lowermost shelf member.

The upper shelf member 12 is disposed on the side panels 30, with a bottom 28 of the shelf member being supported on a top 32 of the side panels, and preferably only by the top of the side panels. An insert member 120 is inserted into each opening of the upper shelf, with the flange 124 received in a countersink 116 formed in the upper surface 29 of the shelf member. The insert members 120 are threadably engaged with the upper end 112 of the tie member. A tool, such as screwdriver, can be engaged with the groove 126 formed on the head of the barrel nut to tighten the insert member and thereby put the tie members 110 in tension, with the side panels 30 clamped between the shelf members 12 in compression.

Additional levels of storage can be easily added without having to disassemble the existing storage unit, regardless of whether it is already one or more levels. Rather, a pair of side panels 30 are simply disposed on the upper surface 29 of the uppermost shelf member 12 of the existing storage unit. A back panel 50 is then positioned between the side panels 30. If desired, one or more front panels 80 can be positioned between a front of the side panels. Tie members 110 are then engaged by the securing members of the respective